

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1 - 14. (Canceled)

15. (Currently Amended) A game device for displaying, as a picture, an object moving in accordance with developments of a game, said game device comprising:

displaying means for displaying an object moving virtually in a three-dimensional virtual space;

means for calculating a present position of said object; and

trace mark drawing means for drawing a trace mark in length within a predetermined range from said present position according to a movement of said object, said trace mark comprising a plurality of polygons, and for gradually extinguishing said trace mark starting from a rear section of said trace mark by progressively making said rear section lighter in color and moving toward a front section of said trace mark with a lapse of time, wherein said polygons toward the rear of said trace mark disappear first, said trace mark drawing means extending only a top position of said trace mark when said present position of said object is located less than a predetermined value apart from the top position of a drawn trace mark, each polygon constituting a trace mark being continuously adjacent to each other.

16. (Canceled)

17. (Previously Presented) The game device according to claim 15, wherein a trace pattern assigned to said plurality of polygons is previously stored as a pattern having different density in storage means.

18. (Previously Presented) The game device according to claim 17 wherein said trace pattern assigned to said plurality of polygons is obtained by changing the transparency of a basic trace pattern.

19. (Previously Presented) A game device for displaying, as a picture, an object moving in accordance with developments of a game, said game device comprising:

means for reading a present position of said object; and

trace mark drawing means for drawing a trace mark in length within a predetermined range from said present position according to a movement of said object, said trace mark having a plurality of portions, and for extinguishing said trace mark from a rear section of each portion by making said rear section of each portion lighter in color with lapse of time, wherein said trace mark drawing means extends only a top position of said trace mark when the present position of said object is located less than a predetermined value apart from the top position of a drawn trace mark, and said trace mark drawing means moves, by said predetermined value, said trace mark in its entirety toward the present position of said object when the present position of said object is located not less than said predetermined value apart from the top position of the drawn trace mark.

20. (Previously Presented) The game device according to any one of claims 15, 17, or 18, wherein said trace mark drawing means adjusts a timing to extinguish the drawn trace mark according to a moving speed of said object.

21. (Previously Presented) The game device according to claim 20, wherein said trace mark drawing means does not extinguish the drawn trace mark when said object stands still, while said trace mark drawing means extinguishes the drawn trace mark at a speed according to a moving speed of said object when said object is moving.

22. (Original) A game device according to claim 15, wherein said trace mark drawing means deletes the drawn trace mark when said object stops and a predetermined time has passed.

23. (Previously Presented) A game device for displaying, as a picture, an object moving in accordance with developments of a game, said game device comprising:

means for reading a present position of said object; and

trace mark drawing means for drawing a trace mark in length within a predetermined range from said present position according to a movement of said object, said trace mark having a plurality of portions, and for extinguishing said trace mark from a rear section of each portion by making said rear section of each portion lighter in color with lapse of time, wherein said trace mark drawing means comprises:

a cyclic register for retaining positions of respective portions of the trace mark, which consists of said plurality of portions, in a plurality of storage regions which respectively relate to the respective portions of the trace mark; and

mark top position indicating means for indicating a storage region of the cyclic register, which corresponds to a top position of the trace mark.

24 - 27. (Canceled)

28. (Currently Amended) A game device for displaying, as a picture, an object moving in a virtual space in accordance with developments of a game, said game device comprising:

processing and displaying means for processing and displaying a trace mark according to said object moving virtually in a three-dimensional virtual space during the processing of said game, and a past trace mark, said trace mark comprising a plurality of polygons, and for gradually extinguishing said trace mark starting from a rear section of said trace mark by progressively making said rear section lighter in color and moving toward a front section of said trace mark with a lapse of time, wherein said polygons toward the rear of said trace mark disappear first, said processing and displaying means extending only a top position of said trace mark when a present position of said object is located less than a predetermined value apart from the top position of the past trace mark, each polygon constituting a trace mark being continuously adjacent to each other;

first storage means for storing said trace mark after said game ends; and

read out means for reading from said first storage means said trace mark that is stored in the first storage means before a beginning of said game and for providing said trace mark as said past trace mark to said processing and displaying means.

29. (Previously Presented) A game device for displaying, as a picture, an object moving in a virtual space in accordance with developments of a game, said game device comprising:

processing and displaying means for processing and displaying a trace mark according to movements of said object during the processing of said game, and a past trace mark, wherein said processing and displaying means comprises:

first display means for processing and displaying said trace mark according to the movements of said object;

first storage means for storing the trace marks which have been generated up to present including said past trace mark;

sorting means for sorting the trace mark which is stored in the first storage means; and

second display means for processing and displaying said trace mark on a basis of the sorting result of the sorting means;

second storage means for storing said trace mark after said game ends; and

read out means for reading from said second storage means said trace mark that is stored in the second storage means before a beginning of said game and for providing said trace mark as said past trace mark to said processing and displaying means.

30. (Previously Presented) The game device according to claim 29, wherein said second display means comprises:

sorting means for sorting said trace mark according to its size and density; and
memory means for storing the trace mark which is newly generated by deleting the trace mark which has low priority according to a sorting result.

31. (Previously Presented) The game device according to claim 29, wherein said sorting means conducts sorting in said virtual space according to a distance between a virtual camera and said trace mark.

32. (Previously Presented) The game device according to claim 29, wherein said second display means displays said trace mark by considering a maximum displayable number of polygons of the trace mark.

33. (Previously Presented) A game device for displaying, as a picture, an object moving in a virtual space in accordance with developments of a game, said game device comprising:

processing and displaying means for processing and displaying a trace mark according to movements of said object during the processing of said game, and a past trace mark;

first storage means for storing said trace mark after said game ends, wherein said first storage means comprises:

judging means for judging a display value of said trace mark;

sorting means for sorting said trace mark on the basis of the judging result of the judging means; and

memory means for storing only a predetermined number of the trace marks from a one which has high priority according to a sorting result of the sorting means; and

read out means for reading from said first storage means said trace mark that is stored in the first storage means before a beginning of said game and for providing said trace mark as said past trace mark to said processing and displaying means.

34. (Previously Presented) The game device according to claim 33, wherein a set of judging conditions of said display value includes at least one of length, position, and density of said trace mark.

35. (Previously Presented) The game device according to claim 28, wherein said processing and display means comprises:

means for reading a present position of said object; and

trace mark drawing means for drawing the trace mark in length within a predetermined range from the present position.

36. (Previously Presented) A medium with a program stored thereon, the program for making a computer system function as a game device according to any one of claims 15, 17-18, or 28-35.

37. (Previously Presented) A game device according to claim 30, wherein said first storage means performs a simple sorting during the processing of the game, and said second storage means performs another sorting that is more complicated than said simple sorting after the game ends.

38. (Currently Amended) A method of forming picture data for a game device for displaying, as a picture, an object moving in accordance with developments of a game, said method comprising:

displaying an object moving virtually in a three-dimensional virtual space;

calculating a present position of said object; and

drawing a trace mark in length within a predetermined range from said present position according to the movements of said object, said trace mark comprising a plurality of polygons; and

gradually extinguishing said trace mark starting from a rear section of said trace mark by progressively making said rear section lighter in color and moving toward a front section of said trace mark with a lapse of time, wherein said polygons toward the rear of said trace mark disappear first, extending only a top position of said trace mark when the present position of said object is located less than a predetermined value apart from the top position of a drawn trace mark, each polygon constituting a trace mark being continuously adjacent to each other.